Mine File
cc Lowell Braxton

STATE OF UTAH
DEPARTMENT OF HEALTH

NORMAN H. BANGERTER, GOVERNOR

SUZANNE DANDOY, M.D., M.P.H., EXECUTIVE DIRECTOR

RECEIVED

JAN 22 1986

DIVISION OF OIL
GAS & MINING

January 20, 1986
533-6146

ACT/035/002

Al Trbovich
Kennecott
1515 Mineral Square
P.O. Box 11248
Salt Lake City, UT 84147

RE: Revised UCD Modernization
Comment Letter

Dear Mr. Trbovich:

We have reviewed the response to our October 22, 1985 comment letter which was submitted on December 2, 1985.

The following concerns remain to be addressed:

1. The gravity tailings pipeline from Barneys Canyon to the concentrators at Magna and Arthur will be built above the recharge area for the principle aquifer that underlies the Salt Lake Valley. The total volumetric capacity of this line is 6.5 million gallons, and the line will contain water with undesirable substances and have a high dissolved solids content which could degrade the ground water if discharged. We are concerned with the potential for leakage from the pipeline in the event of breaks due to freezing, earthquake, or other unforeseen events. Damage to the underlying aquifer needs to be kept to a minimum through safety precautions and a formalized emergency spill program. The revised report received last July identifies some postulated spill ponding areas for the Little Valley Wash, but does not show any other containment schemes for the rest of the pipeline. It is recommended that either several small lined containment basins be placed along the pipeline or a lined drainage ditch that would feed into a large containment basin be constructed for emergency spill situations. This issue of ground water contamination and its prevention needs to be addressed in greater detail than what was given in the July 1985 report.

2. Along the same lines, potential ground water contamination due to the proposed septic tank-drainfield system needs to be considered. The system should be located in Barneys Wash, as far south as possible near the southern boundary of Section 6. Effluents will then be distant from city wells in the northeast corner of Section 5.

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3. The Bureau of Public Water Supplies will require a set of detailed plans for their review and approval on the 16-inch fresh/potable water pipeline, the 800,000 gallon water tank and the water supply pumps.

4. A single proof test for liner permeability in each storm water retention pond may not be adequate. We recommend a minimum of 2 tests per pond. Compaction tests should be run at some frequency during the compaction process to assure proper construction of the pond liner.

5. The emergency spillway for the process water reservoir identified in note 1 on exhibit T needs to be located on the plans. In the event of an emergency spill, how is the spill to be contained and disposed of?

6. The following are concerns with the septic tank drainfield system which will require local Health Department approval:

   a. The top of the septic tank shall be at least 12 inches below finished grade.
   b. Invert elevations should be given on a profile drawing of the entire sewer system, septic tank and drainfield.
   c. A minimum of two permeability tests should be run at the depth and location of the proposed drainfield. This will dictate the application rate which is required for sizing the drainfield.
   d. The current drainfield design will not be adequate if the application rate is less than 0.75 gallons per day per square foot.
   e. The system should be located away from water supply wells as described in comment number 2 above.

The above comments need to be addressed before a construction permit can be issued except for number 6 which falls under the Salt Lake City/County Health Department's jurisdiction. We will continue our review when a response to our comments is received.

Feel free to contact me with any questions you may have on these comments.

Sincerely,

Bryon O. Elwell

Bryon O. Elwell
Environmental Engineer
Bureau of Water Pollution Control

BOE:jgh
cc: Robert Malone, Kennecott
Salt Lake County Health Dept.
Larry Mize, Bureau of Public Water Supplies
Oil, Gas & Mining
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